

AMENDMENTS TO THE SPECIFICATION

Please amend the specification as follows:

Please replace the paragraph on page 5, lines 25 and 26, with the following amended paragraph.

Figure 1 shows a transmission electron micrograph of one embodiment of a self-assembled protein (SEQ ID NO:2) polymer useful in the present invention.

Please replace the paragraph on page 100, lines 14 to 21, with the following amended paragraph.

In one embodiment, the polymer of the present invention is a hollow tube having approximately a 25nm outer diameter and a 20nm inner diameter. The polymer of the present invention preferably has a bending modulus of 5 ± 2 Gpa. At suitable conditions, polymers of the present invention may interact with each other by pairing, bundling, entangling (excluded volume interaction) and electrostatic cross-linking (bridging by divalent cations) to form structures varying from a pair of rods to an interconnected network. A transmission electron micrograph of one embodiment of the polymer (SEQ ID NO:2) of the present invention is illustrated in Figure 1.

Please replace the paragraph on page 147, lines 16 to 24, with the following amended paragraph.

8 μ l of each of the reconstitution batches were pipetted onto a mica-coated copper net (Plasma Cleaner PDC-3XG, Harrick Sci. Co., Ossining, N.Y., USA) with carbon sheet (400 mesh, Taab, Berkshire, UK). After an absorption period of 15 seconds, the suspension was drawn off with filter paper from the bottom. After washed with a drop of H_2O_{bidist} , the grid was coated with a drop of 3% uranyl acetate solution. Then after waiting for 45 seconds, the contrast agent uranyl acetate was stripped away with filter paper. Then the preparation was analyzed with a Philips CM 12 transmission electron microscope (Philips, Eindhoven, NL) (Figure 1).

Please replace the paragraph on page 149, lines 3 to 10, with the following amended paragraph.

A 300 L culture of recombinant E. coli BL21 (DE3) harboring expression plasmid pEX-CAN-A (produced by attaching sequence substantially identical to SEQ ID NO. 1 to a vector pET17b using a procedure described in Example 15 [[20]]) was grown in a HTE-Fermentor (Bioengineering, Wald, Switzerland) at 37°C under aeration (165 L air / min.) and stirring (400 rpm) with a doubling time of about 40 min. At an O.D. (600nm) of 0.80, production of Can A protein was induced by addition of 30 grams of IPTG. Cells were harvested 3 hours after the induction and after being cooled down to 4°C. Cell yield: 1,610 grams (wet weight).